

AMENDMENTS TO THE CLAIMS

Claim 1-(Currently Amended) A seal mechanism for a fluid machine to prevent a fluid from leaking out of a high-pressure space into a low-pressure space in the fluid machine, said seal mechanism comprising:

an annular seal member movable in a radial direction, said annular seal member having a first surface on a side of the low-pressure space in the fluid machine;

a housing disposed between a body of the fluid machine and a rotatable member located inside the body of the fluid machine so as to receive said annular seal member, said housing having a second surface facing said first surface of said annular seal member; and

at least one passage formed in at least one of said first surface and said second surface such that a negative pressure of the low-pressure space is introduced into said at least one passage to bring said annular seal member into close contact with said second surface of said housing.

Claim 2 (Original) The seal mechanism as recited in claim 1, wherein said at least one of said first surface and said second surface comprises a flat surface.

Claim 3 (Original) The seal mechanism as recited in claim 1, wherein said at least one passage comprises a plurality of passages that do not reach an outer circumferential surface of said annular seal member.

Claim 4 (Original) The seal mechanism as recited in claim 3, wherein said plurality of passages do not reach an inner circumferential surface of said annular seal member.

Claim 5 (Currently Amended) The seal mechanism as recited in claim 3-~~or~~4, wherein said plurality of passages include radially arranged passages.

Claim 6 (Currently Amended) The seal mechanism as recited in claim 3-~~or~~4, wherein said plurality of passages include a passage extending in a circumferential direction.

Claim 7 (Currently Amended) The seal mechanism as recited in ~~any one of claims 1 through 6~~ claim 1, wherein at least one of said housing and said seal member is made of metal or synthetic resin.

Claim 8 (Currently Amended) The seal mechanism as recited in ~~any one of claims 1 through 6~~ claim 1, wherein at least one of said housing and said seal member includes a core covered with synthetic resin.

Claim 9 (Currently Amended) The seal mechanism as recited in ~~any one of claims 1 through 6~~ claim 1, wherein at least one of said housing and said seal member is formed by molding.

Claim 10 (Currently Amended) A seal mechanism for a fluid machine to prevent a fluid from leaking out of a high-pressure space into a low-pressure space in the fluid machine, said seal mechanism comprising:

an annular seal member movable in a radial direction, said annular seal member having at least two first surfaces on a side of the low-pressure space in the fluid machine;
and

a housing disposed between a body of the fluid machine and a rotatable member located inside the body of the fluid machine so as to receive said annular seal member, said housing having a second surface facing said at least two first surfaces of said annular seal member; and

at least one passage formed in at least one of said at least two first surfaces and said second surface such that a negative pressure of the low-pressure space is introduced into said at least one passage to bring said annular seal member into close contact with said second surface of said housing,

wherein said at least two first surfaces of said annular seal member include:

a radially outward surface which is brought into contact with said second surface of said housing over its entire surface; and

a radially inward surface located radially inward of said radially outward surface, said radially outward surface projecting from said radially inward surface toward the low-pressure space in the fluid machine.

Claim 11 (Currently Amended) A centrifugal pump comprising:
a body;
a rotatable shaft;
an impeller rotatable about said rotatable shaft within the body; and
said seal mechanism as recited in ~~any one of claims 1 through 10~~ claim 1, said seal mechanism being disposed between said body and said impeller.

Claim 12 (Currently Amended) A centrifugal pump comprising:
a body;
a rotatable shaft;
an impeller rotatable about said rotatable shaft within the body; and
said seal mechanism as recited in ~~any one of claims 1 through 10~~ claim 1, said seal mechanism being disposed between said body and said rotatable shaft.

Claim 13 (Currently Amended) A fluid machine comprising:
a body;
a rotatable member disposed within the body; and
said seal mechanism as recited in ~~any one of claims 1 through 10~~ claim 1, said seal mechanism being disposed between said body and said rotatable member.

Claim 14 (New) A centrifugal pump comprising:
a body;
a rotatable shaft;
an impeller rotatable about said rotatable shaft within the body; and
said seal mechanism as recited in claim 10, said seal mechanism being disposed between said body and said impeller.

Claim 15 (New) A centrifugal pump comprising:
a body;
a rotatable shaft;
an impeller rotatable about said rotatable shaft within the body; and
said seal mechanism as recited in claim 10, said seal mechanism being disposed
between said body and said rotatable shaft.

Claim 16 (New) A fluid machine comprising:
a body;
a rotatable member disposed within the body; and
said seal mechanism as recited in claim 10, said seal mechanism being disposed
between said body and said rotatable member.

Claim 17 (New) The seal mechanism as recited in claim 4, wherein said plurality of
passages include radially arranged passages.

Claim 18 (New) The seal mechanism as recited in claim 4, wherein said plurality of
passages include a passage extending in a circumferential direction.

Claim 19 (New) The seal mechanism as recited in claim 2, wherein at least one of
said housing and said seal member is made of metal or synthetic resin.

Claim 20 (New) The seal mechanism as recited in claim 3, wherein at least one of
said housing and said seal member is made of metal or synthetic resin.